Appendix G

Using the Search Functions in e-AVIATRS updated 30 Jun 12

Note: All searches only look at reports that have been submitted to the database. Just because a mishap has appeared on the message board does not mean it has been posted in the database - it may take a few days. Also, Class A/B mishaps in which a MAB is convened are usually not in the database until the Commandant's Safety Board reviews the mishap report.

There are five ways to search in **e-AVIATRS**:

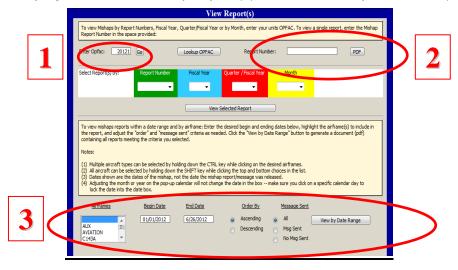
- 1) <u>View Mishap Reports Function</u> (p. 1)
- 2) <u>Search Mishaps Function (p. 3)</u>
- 3) <u>Advanced Search Function (p. 5)</u>
- 4) <u>Abbreviated Report Search Function (p. 10)</u>
- 5) <u>Auxiliary Abbreviated Report Function</u> (p. 11)

To use these you should know some basics of how the database is set up and how the system looks at the data. Appendix B's "Lookup tables" are a useful guide when you try to conduct an advanced search.

<u>Printing/Viewing/Saving</u>: Reports are in the form of a portable data file (.pdf) The report can be viewed, printed, saved, or emailed.

View Mishaps Reports Function

<u>View Mishap Reports</u> provides three options for searching for mishap reports. All three options display the entire mishap report(s) in a canned report format (see p. 14).



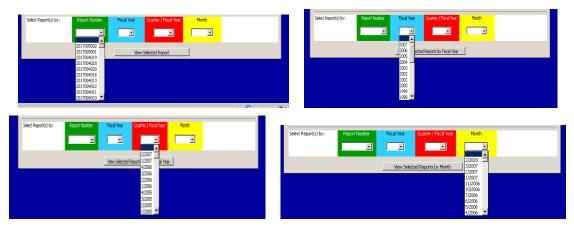
Output = Single .pdf file containing full reports meeting search parameters in chronological order

How to use:

- 1. <u>Lookup Reports by OPFAC</u>. Enter an OPFAC and click **Go**. There are four options provided for selecting reports.
 - A single report number (RNO).
 - All reports for a Fiscal Year.
 - All reports for a Quarter/Fiscal Year
 - All reports for a Month/Calendar Year.



Highlight your choice and click *View Selected Report by FY/Month/Quarter*. Examples of dropdown lists:

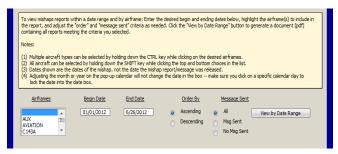


Note: If there are no reports for a month, quarter or year, that choice will not appear in the dropdown list. Another common error is selecting the wrong RNO, which sometimes happens with units that have changed names like Sector Columbia River or when unit names are not intuitive within the matches, like "CG Avtracen Mobile."

2. <u>Search by RNO</u>. Type in the report number (RNO = OPFAC + FY + three digit sequential #) and click **Go**.



3. Search by Mishap Date Range, Airframe, and method of release (CGMS msg). Enter the airframe, date range, and select ascending or descending. The CNTRL and SHIFT buttons can be used to pick multiple airframes. Click "Msg Sent" or "No Msg Sent" if you want to sort based on whether a CGMS message was sent. (This is particularly useful when looking for past reports that were sent straight to database.) Click View by Date Range to view the reports matching the criteria.



Search Mishaps Function

Search Mishaps is a simple "keyword" word search. For example, you could search for reports containing the word "hoist," "propeller," "nvg," and/or "fadec" in 7 specific report categories. Using the word **and** between keywords may be helpful, as a space between words will be treated as an "or." For example, a search for "landing gear" gets 500+ reports but a search for "landing AND gear" returns about 150 records.

Output: List of RNOs (and their short descriptions) meeting the word search criteria. Each RNO must be viewed as an individual report and only 5 RNOs to a page. Reports are sorted by RNO number (0000000000 would be first), so the sequence of reports will not be grouped in a useful way.

Good for:

- Searching for a specific mishap or two you only have vague details on and/or are certain of a keyword or two used in the report, but don't know the date or unit of mishap. In other words, using this function can help narrow down your search before using a more sophisticated function.
- Starting point for determining how many reports meet certain criteria, e.g., "xxx# of reports use both terms 65 and overtorque," and the description of the mishap is sufficient to tell if the mishap is a match.

Not good for:

- Searching for mishaps in which you want to mine through lots of full reports or you prefer a summary report (with this search, every report must be viewed/printed individually).
- Searching for a type of mishap you expect to return lots of reports, the best example being H-65 main gearbox overtorques. Again, it's hard to mine through the output.
- Searching when you want to control the order of the output there are no such options here.
- Using the "frequently used words" search function. This tells you what the most commonly used words are in reports. Not surprisingly, it will usually tell you that words like "flight," "engine," "light," and "power" are the most common words in aviation mishap reports.

NOTE: A space between words is the same as using "or."



Output: Matching reports will be displayed 5 at a time with their unit, date & time, and a short description of the mishap. The order is sequential based on their RNO. Use the green arrow at the bottom to page thru multiple pages. Click "Print Report" to view a report (and to then print it). Reports will have to be opened/viewed one at a time.

Advanced Search Function

The **Advanced Search** function is an ad hoc query that allows you to select the fields you want to query, enter your search criteria, and then design the report output. This is useful for when you know how you want to narrow down your search criteria and in situations where you only want to browse report "summaries" and don't need to view full reports. The "yes/no" types of boxes are helpful here, as you can quickly isolate ship/helo, day/night, small boat, or MRM mishaps from the rest of the reports.

Note: One thing to keep in mind is that certain categories are filled by dropdown and others with text. The dropdowns are straightforward, but the text boxes can be prone to typos or different spellings (or even misspellings) of the same term:

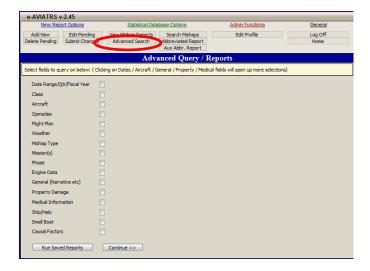
- overtorque, over-torque, over torque, OT, or overq
- hard landing or hardlanding
- main gear box, main gearbox or mgb
- birdstrike, bird strike, B/S
- qty, quantity
- flight, flt
- rescue swimmer, RS, swimmer, AST, ASM, rescueman (old term)

Note: In the **Mishap Type** category (which is a controlled field) only the word "overtorque" is used, but the **Mishap Description** and other text fields the term in not contained and may contain the other spellings.

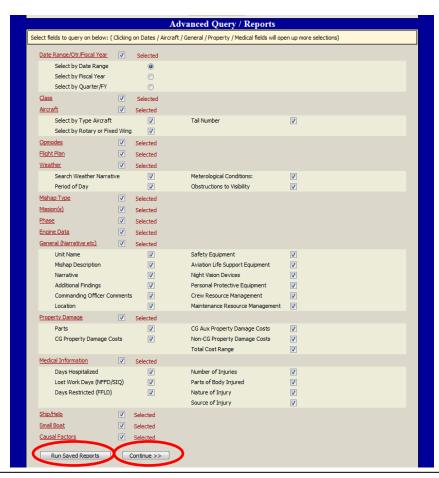
Another consideration is that if you do a text search for a term like "spatial disorientation" you should consider other words the FSO might have used to describe the same phenomenon. Some examples:

- (Hoist) entanglement, shear, snag, part, foul
- Spatial disorientation: spatial d, vertigo, leans, milkbowl, whiteout, brownout

When you select **Advanced Search**, the following screen comes up:

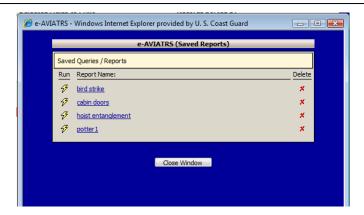


This next screen shows all the fields that can be queried. Several categories have additional drop down lists. Click the fields you want to search. Once you have selected the fields to search, click on **Continue** located at the bottom (not shown).

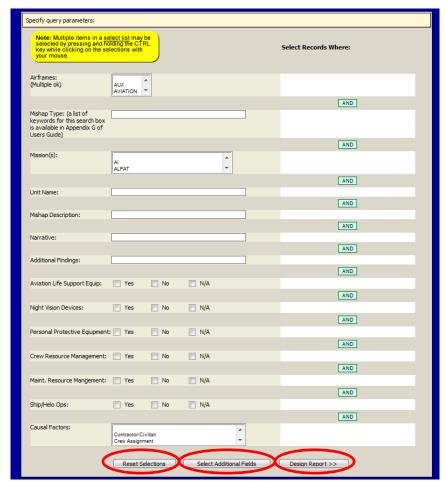


Run saved reports: Diverts you to a different screen (below) to run searches you've previously saved.

Continue: Takes you to the next screen (Specify query parameters)



Specify query (search) parameters page: Select parameters from the boxes/pulldown menus or type in the search terms. Sometimes you may click boxes just to eliminate certain types of mishaps, e.g., check **flight** and **flight-related** to eliminate the **ground** mishaps.



Reset Selections: Blanks out text fields and deselects all the selections you've made.

Select Additional Fields: Saves what you've done on this page and backs you up one screen

Design Report: Takes you to the next page (Design Report).

Note: For fields with pick list, multiple selections can be made by holding down the CTRL or SHIFT key.

"AND / OR" Box - Click on the green "AND" boxes to toggle between "and' and "or." Keep in mind that the "OR" essentially creates a new search. The search will look for everything before the "OR" and then search for everything after the search. "AND' looks for reports matching all parameters.

Tips on Advanced Search Criteria

For text fields, the following rules apply.

- A space between words is treated as an "or". Any report containing any of the terms in the queried field will be returned.
- A plus sign (+) or the word "AND" will return any record containing that word in the queried field.
- A minus sign (-) means "NOT". This will look for reports that do not contain or match the word.
- Placing words in parenthesis e.g., (cabin door) will search for that phase.
 The plus sign (+) and minus sign (-) carry the same rules as they do for single words.

Keep in mind that the text fields (**Mishap Description**, **Weather**, **Narrative**, **Additional Findings**, **CO's Comments** and **Parts**) are not controlled and are entered by different people with different background. When searching text fields consider the different ways a word can be spelled or abbreviated.

There are also times when the key words are not listed in the **Mishap Type** or **Mishap Description**.

Other times a text field may contain the word/words but in a different text. Something like "the crew thought it was an overtorque" or "this event had the same symptoms as an overtorque" or "this was not an overtorque".

Terms like "hoist", "cabin door", "injury" or "swimmer" can be used in the **Mishap Description** but the mishap may involve something else.

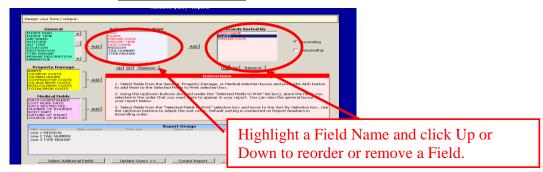
Watch for words within a word. Searching for "dual" as in "dual qual" can yield reports with the word "individual" or "residual". Searching for "qual" can result in reports with "qualified", "squal" or "equal"....you get the picture.

Reading the narratives is very important when using the advanced search.

The <u>Advanced Search</u> does not allow changing the search order of the fields. This may mean having to do multiple searches. We are looking at a couple other programs, but in the mean time, call Brian Potter at 202-475-5198 for assistance.

The <u>Advanced Search</u> does not provide summary data except for a count of the records found at the top of the print out.

Design Report



On the <u>Design Form / Output</u> page, you are presented with 3 highlighted windows (General, Property Damage, and Medical) on the left side, each representing a different section of the mishap report. Double click or click once on the fields then click **Add** to add fields to the final report. Fields selected will be displayed in Selected Fields to Print window. To remove a field from the report, select the Field and click **Remove** button.

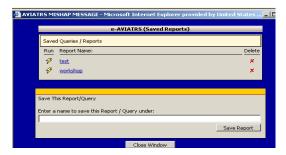
Tip: Add **Mishap Description** and **Narrative** to the "Selected Fields to Print" box, then click the **Create Report** button. Look this over, browse the narratives to initially QA to make sure you're getting the types of reports you wanted. From here, you can close the report and go back to spend more time designing your output.

<u>Select Fields to Print</u>: After populated this box with the fields you want to print, change the order of fields to print by highlighting a field in the print window and clicking Up/Down.

Records Sorted By: You can specify how the records will be sorted by highlighting the Field in the Sort window and selecting ascending or descending. Change the sort order by highlighting a Field in the Sort window and clicking Up/Down. To remove a field from the sort, select the field and click **Remove** button.

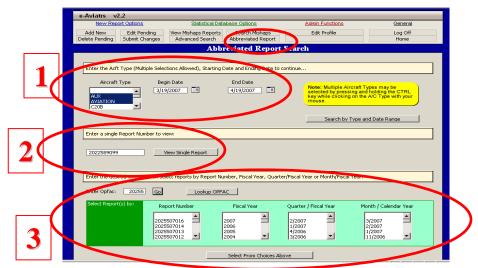
Note: Certain fields (in red; RNO, Mishap Date, Time, OPFAC, Unit and Class) will always be printed as the report header.

When you have competed designing the report, click **Create Report** to view the output. **Reminder:** You may have to read thru the **mishap narratives** to be 100% sure you have captured only the mishap reports you want.



You can save the report for later use. However, two downsides are the saved report cannot be changed nor can the search criteria be viewed.

Abbreviated Report Search



The <u>Abbreviated Report</u> function was developed to displays only the first 11 lines of the mishap report. These represent the "factual" fields which are technically releasable for public consumption, i.e., FOIA requests. There are three options for generating this report.

1) Aircraft Type and Mishap Date range. Select Aircraft Type and enter Mishap Date range and click SEARCH.

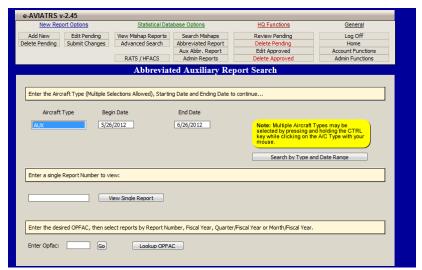
Note: To select multiple choices from a drop down list hold the Ctrl or Alt key while clicking on the choices.

- 2) RNO. Enter RNO and click View.
- 3) **OPFAC** and **RNO** (Fiscal Year, Quarter/Fiscal Year or Month/Calendar Year). Highlight your choice from the drop down lists at the bottom and click on SELECT FROM CHOICES ABOVE. (see page 12 for looking up **OPFAC**).

Printing/ Viewing/ Saving: All reports generated by e-AVIATRS are in the form of a .pdf. The report can be viewed on line, send to a printer or saved to a file and opened in another application.

AUXAIR ABBREVIATED REPORT FUNCTION

This search function only lets you search through USCG Auxiliary Air mishaps, and will only provide non-privileged, releasable data.



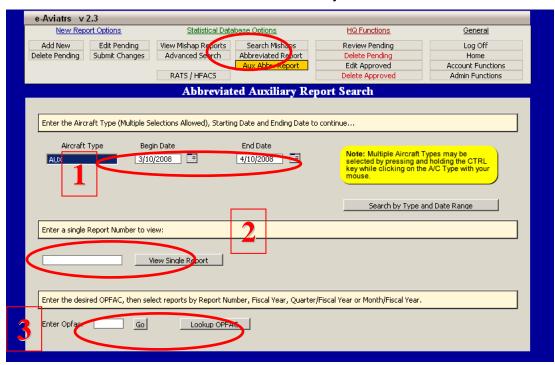
The <u>Aux Abbreviated Report</u> function was developed to accommodate the AUXAIR Safety Program. Most Auxiliarists do not have access CGMS and therefore do not have ready access to CG aviation mishap reports. By using the AuxAir Abbreviated Report Function aviation mishaps can be printed/shared with the AuxAir in a timely manner. (See the e-AVIATRS User Guide for a discussion on Auxiliary Air mishaps)



The abbreviated report contains only factual data and has been approved for release outside the Coast Guard system. Basically, the narratives are here, but the "additional findings" and "recommendations" sections are not. Abbreviated messages can be distributed to Auxiliarists via the Auxiliary Aviation Standardization Team and the Auxiliary District Flight Safety Officer (DFSO).

Auxiliarists are encouraged to view CG Auxiliary aviation mishap messages in their entirety and these should be available for review through the Air Station Flight Safety

Officer (FSO), due to the possible privileged information content of a mishap message they can not be released outside the Coast Guard system.



The <u>AUX Abbreviated Report</u> has three options for generating a report and works just like the Abbreviated Report Function, but only aviation mishaps involving the AUXAIR will be displayed.

- 1) **Mishap Date** range. Enter **Mishap Date** range and click SEARCH.
- 2) RNO. Enter RNO and click VIEW.
- 3) **OPFAC** and **RNO** (Fiscal Year, Quarter/Fiscal Year or Month/Calendar Year). Highlight your choice from the drop down lists at the bottom and click on SELECT FROM CHOICES ABOVE. (see page 12 for looking up **OPFAC**).

Call CG-1131

There are over 15,000 reports in *e-AVIATRS* dating back to the early 80's. CG-1131 has experience working with the data and knows how to properly search the data. CG-1131 also knows what questions to ask and what information is needed from the requestor to get the proper data/reports. Unlike this method, the other search options in *E-AVIATRS* cannot give you a good feeling for what is and isn't going to be supported by the data, or if this type of search has already been done.

This method is more flexible and usually produces correct data with little or no aggravation. It uses the actual data in the database, so it's easier to manipulate and not restricted to the "canned" searches and reports. To use this method, be prepared to explain what you are looking for, associated words, parts replaced, symptoms, EPs, maintenance actions, etc.

This method is also more flexibility in designing the final report, you decide what should be included in the (summary info or text fields) and how it is sorted (date, unit, acft, etc). You can have the data produced as a text file or a spreadsheet.

Everything on the mishap message is capture in *e-AVIATRS* and then some. All fields are searchable using this method. This method uses key words, specific words, phrases, "fuzzy searches" (sounds like, associated terms or alternate words), related actions, symptoms or associated components to search the reports. Multi-layered searches are also available.

Using CG-1131 also takes advantage of years of reviewing and working with the mishap data and knowing how things are entered or how things are related. Also has the advantage of using the "brain trust" at HQ, ATC and ALC and others looking at and discussing the same topic. Often times, the search you are requesting has been requested by someone else.

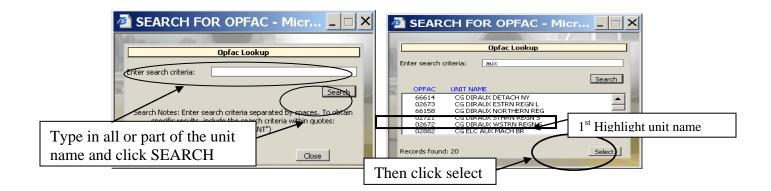
QUESTIONS/THINGS TO THINK ABOUT WHEN REQUESTING DATA

- Is it a current or a long term problem?
- Are you trying to show something is or isn't a problem?
- Are there similar events, words or terms to look for?
- What other unit has this problem? Is your unit the only unit?
- Did we change something (equipment, procedure, parts, flight manual, etc)? Is it working? Was it the wrong fix? Has it created another problem?
- What time period? You will want enough data to do a comparison, before and after the change. (Note: 15,000+ records, dating back to the early 80"s).
- Time of year, tail number, and unit can be quite telling? Example—An East Coast unit has several incidents, no other unit does. Suddenly East Coast unit stops having problem and a West Coast unit starts having the same problems. Either an airframe or personnel moved.
- Could it be a seasonal problem (cold weather, humidity, etc)?
- Do you want to show how much it costs us each year because we haven't found a fix? Or how much cost and down time we've eliminated by changing something?

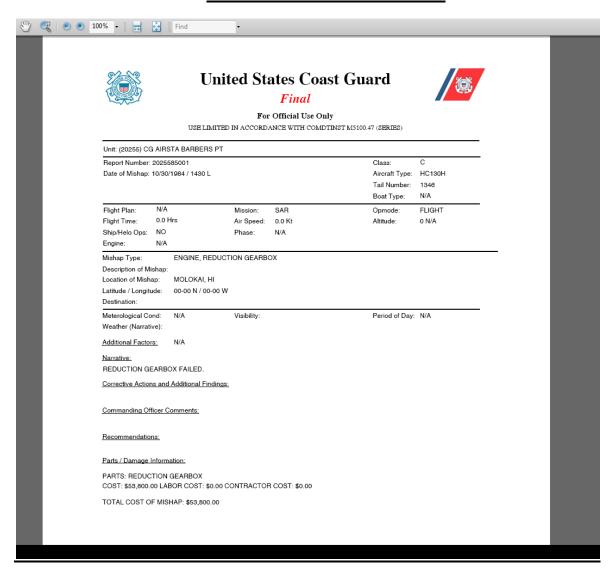
While CG-1131 knows how to manipulate the data, you may still be relied upon for the technical stuff. You may be ask to read through the reports (most of the work has already been done, you're just the QA). Better you make the decision on the questionable reports, than exclude possible applicable reports. It is often necessary to read between the lines or fill in the blanks where the report is not written well, or the problem wasn't fully understood at the time the mishap report was written.

OPFAC LOOKUP

To lookup an OPFAC, click on **Lookup OPFAC**.



SAMPLE MISHAP REPORT



Mishap Types

One of these is added to each mishap by CG-1131 in the QA process before releasing to database)

A/C DEDARTED DUNIMAY	AIDEDAME LANDING LT
A/C, DEPARTED RUNWAY	AIRFRAME, LANDING LT
A/C, IMPACTED FENCE	AIRFRAME, LOCATOR LT
A/C, IMPACTED HANGAR	AIRFRAME, MGB, COWLING
A/C, IMPACTED TERRAIN	AIRFRAME, NOISE
A/C, IMPACTED WATER	AIRFRAME, NOSEOVER
	AIRFRAME, PANEL
ADS, AIRFRAME	AIRFRAME, PANEL, DPTD INFLT
ADS, DROP	AIRFRAME, PITOT TUBE
ADS, DROP CHUTE	AIRFRAME, SEARCH LT
ADS, DROP HOOK	AIRFRAME, SEAT
ADS, DROP PUMP	AIRFRAME, SKI
ADS, LINE CUTTER	AIRFRAME, SPONSON WINDOW
ADS, STATIC/TRAIL LINE	AIRFRAME, SPONSON WINDOW, DPTD
	AIRFRAME, TAXIING
AFCS	AIRFRAME, TFOA
AFCS, COMPUTER	AIRFRAME, TIEDOWNS
AFCS, COMPUTER, MOISTURE	AIRFRAME, TOWING
AFCS, HARDOVER	AIRFRAME, WEATHER
AFCS, HARDOVER, MOISTURE	AIRFRAME, WEIGHT & BALANCE
AFCS, MOISTURE	AIRFRAME, WINDOW
AFCS, PITCH SERIES ACTUATOR	AIRFRAME, WINDOW, CRACKED
AFCS, ROLL SERIES ACTUATOR	AIRFRAME, WINDOW, DPTD INFLT
AFCS, YAW CHANNEL	AIRFRAME, WINDOW, WEATHER
AFCS, YAW SERIES ACTUATOR	AIRFRAME, WINDSCREEN
711 00, 17111 0211120 710 10711 011	AIRFRAME, WINDSCREEN, ANTI-ICE
AIRCREW	AIRFRAME, WINDSCREEN, CRACKED
AIRCREW	AIRFRAINE, WINDSCREEN, CRACKED
ALDEDAME	AIDOIOK AIDODEW
AIRFRAME	AIRSICK, AIRCREW
AIRFRAME, ANTENNA	
AIRFRAME, ANTENNA, ELT	APU
AIRFRAME, ANTENNA, HF	APU, FIRE LT
AIRFRAME, ANTENNA, HF, DPTD INFLT	APU, FIRE, START
AIRFRAME, ANTENNA, LONGWIRE	APU, GENERATOR
AIRFRAME, APU COWLING	APU, SMOKE/FUMES
AIRFRAME, AVIONICS WINDOW	7ti 0, Giviorte/i Givieo
	ALIV HVD CVC TIME
AIRFRAME, BLEED AIR LEAK	AUX HYD SYS, LINE
AIRFRAME, CABIN WINDOW	AUX HYD SYS, PUMP
AIRFRAME, CARGO	AUX HYD SYS, SERVO
AIRFRAME, CHECKSTAND	
AIRFRAME, CHINE PANEL	BATTERY
AIRFRAME, COWLING	BATTERY, OVERTEMP
AIRFRAME, DEER STRIKE	
AIRFRAME, DOOR	BIRDSTRIKE
AIRFRAME, DOOR, DPTD INFLT	BIRDSTRIKE, AIRFRAME
AIRFRAME, DOOR, OPEN INFLT	BIRDSTRIKE, COWLING
AIRFRAME, ENGINE, COWLING	BIRDSTRIKE, ENGINE
AIRFRAME, FIRE BOTTLE, TAXIING	BIRDSTRIKE, FLAPS
AIRFRAME, FIRE BOTTLE, TOWING	BIRDSTRIKE, FUSELAGE
AIRFRAME, FLIR	BIRDSTRIKE, MRB
AIRFRAME, FOD, HARD	BIRDSTRIKE, NO DAMAGE
AIRFRAME, FUSELAGE	BIRDSTRIKE, PROP
AIRFRAME, GROUND EQUIP	BIRDSTRIKE, RADOME
AIRFRAME, GROUND HANDLING	BIRDSTRIKE, SLAT
AIRFRAME, GROUNDING WIRE	BIRDSTRIKE, SPONSON
AIRFRAME, HOISTING	BIRDSTRIKE, VERT STAB
AIRFRAME, JACKING	BIRDSTRIKE, WINDOW
,	Birthot rainte, triitbott

BIRDSTRIKE, WINDSCREEN ELECTRICAL, DC SYS, GENERATOR BIRDSTRIKE, WING ELECTRICAL, DC SYS, LINE CONTACTOR BIRDSTRIKE, WING, LEADING EDGE ELECTRICAL, FIRE ELECTRICAL, FIRE, ANTI-ICE **BLEED AIR ELECTRICAL, FUMES** BLEED AIR, DUCT ELECTRICAL, GCU BLEED AIR. LINE ELECTRICAL, GENERATOR ELECTRICAL, HARS COUPLER BLEED AIR, MANIFOLD ELECTRICAL, INVERTER BLEED AIR, OVHT ELECTRICAL, MOISTURE **BOOSTER HYD SYS** ELECTRICAL, PITOT HEAT ELECTRICAL, RELAY ELECTRICAL, SMOKE/FUMES CABIN DOOR ELECTRICAL, SMOKE/FUMES, AUTOPILOT CABIN DOOR, DPTD INFLT CABIN DOOR, GROUND EQUIP ELECTRICAL, SMOKE/FUMES, HEATER CABIN DOOR, LOCKING MECHANISM ELECTRICAL, SMOKE/FUMES, RADAR ELECTRICAL, SMOKE/FUMES, RADIO CABIN DOOR, PRESSURIZATION CABIN DOOR, ROLLERS ELECTRICAL, SMOKE/FUMES, WIRING CABIN DOOR, ROLLERS, DPTD INFLT ELECTRICAL, STARTER/GENERATOR CABIN DOOR, TRACK ELECTRICAL, SUPERVISORY PANEL CABIN DOOR, TRACK, DPTD INFLT ELECTRICAL, WIRING CABIN DOOR, WINDOW **ELECTRONICS, AVIONICS** CARGO, FIRE **ELECTRONICS, MOISTURE** CARGO, FUEL SPILL ELT/CPI, DEPLOYED CARGO, FUMES CARGO, SHIFTED EMI COMMS COMMS, CCD LOCKUP **ENGINE** ENGINE, ACCESSORY DRIVE GEARBOX CSD HYD SYS **ENGINE, AIRFLOW MODULATOR** CSD HYD SYS, ACCUMULATOR, LINE ENGINE, AIRSTART ENGINE, ANTICIPATOR CSD HYD SYS, LINE ENGINE, ANTICIPATOR, ACTUATOR CSD HYD SYS, PRESSURE SWITCH CSD HYD SYS, PUMP ENGINE, ANTI-ICE CSD HYD SYS, XMITTER **ENGINE, ASPIRATOR** ENGINE, BEARING DELUGE SYS, INADVERTANT ACTIVATION ENGINE, BEARING SEAL ENGINE, BEARING, MAKING METAL **DMB** ENGINE, BLEED AIR ENGINE, CHIP LT ENGINE, CHIP LT, BEARING DRAG CHUTE ENGINE, CHIP LT, BREAK-IN MATERIAL DRAG CHUTE, SEPARATED ENGINE, CHIP LT, CARBON ENGINE, CHIP LT, CHIPS **ECS** ENGINE, CHIP LT, DETECTOR ECS, ECU ECS, ECU, SENSOR ENGINE, CHIP LT, FLAKES ECS, PRESSURIZATION ENGINE, CHIP LT, FUZZ ENGINE, CHIP LT, GRANULES ENGINE, CHIP LT, METAL ECU, COMPRESSOR ENGINE, CHIP LT, NO METAL **ELECTRICAL** ENGINE, CHIP LT, PARTICLES ELECTRICAL, 115/26 VAC XFORMER ENGINE, CHIP LT, SLIVERS ELECTRICAL, AC SYS ENGINE, CHIP LT, SPLINTERS ENGINE, CHIP LT, TYPE I ELECTRICAL, AC SYS, ALTERNATOR ELECTRICAL, AC SYS, GENERATOR ENGINE, CHIP LT, TYPE II ELECTRICAL, AFCS PANEL ENGINE, COMPRESSOR ELECTRICAL, ANTI-ICE ENGINE, DECU ELECTRICAL, ANTI-ICE, CONTROLLER ENGINE, DESWIRL DUCT ELECTRICAL, CONVERTER ENGINE, DRIVE SHAFT ELECTRICAL, DC SYS ENGINE, ECA

ENGINE, EFCL ENGINE, OVERTEMP, START ENGINE, FFCL ENGINE, OVERTEMP, WASH ENGINE, FIRE ENGINE, OVERTORQUE ENGINE, FIRE DETECTION SYS ENGINE, OVERTORQUE, OVERHAUL ENGINE, FIRE LT ENGINE, OVERTORQUE, PILOT ENGINE, FIRE, SHUTDOWN ENGINE, OVHT DETECTOR ENGINE, FIRE, START ENGINE, P2T2 ENGINE, P2T2 PROBE ENGINE, FLAMEOUT ENGINE, FLAMEOUT, FUEL COMPUTER **ENGINE, POWER LOSS** ENGINE, FLAMEOUT, FUEL SYS ENGINE, POWER LOSS, FUEL COMPUTER ENGINE, FLOW FENCE ENGINE, POWER LOSS, FUEL CONTROL ENGINE, FOD ENGINE, POWER TURBINE ENGINE, PROP ENGINE, FOD, HARD ENGINE, PROP DEICE ENGINE, FOD, SOFT ENGINE, PROP, FOD, HARD ENGINE, FUEL COMPUTER ENGINE, FUEL CONTROL ENGINE, PROP, GROUND HANDLING ENGINE, PROP, NTS BRACKET ENGINE, FUEL SYS, FLOW DIVIDER ENGINE, PROP, OIL ENGINE, GCU ENGINE, PROP, OIL PRESS ENGINE, GENERATOR ENGINE, GROUND HANDLING ENGINE, PROP, OIL THRUST NUT ENGINE, PROP, PITCHLOCK ENGINE, HIGH SPEED SHAFT ENGINE, PROP, SYNCHROPHASER ENGINE, HMU ENGINE, PROP, TAXIING ENGINE, HP TURBINE **ENGINE, IGNITION SYS** ENGINE, PROP, VALVE HOUSING ENGINE, IGNITOR ENGINE, Q-SPLIT ENGINE, Q-SPLIT, ANTICIPATOR ENGINE, IGV ACTUATOR ENGINE, Q-SPLIT, GOVERNOR ENGINE, MGT ENGINE, MONOPOLE ENGINE, Q-SPLIT, XDUCER ENGINE, MOUNTS ENGINE, Q-SPLIT, XMITTER ENGINE, NACELLE OVHT **ENGINE, REDUCTION GEARBOX** ENGINE, SHUTDOWN, INFLT ENGINE, NF TACH GENERATOR ENGINE, SLOW TO SPOOL ENGINE, NG OVERSPEED ENGINE, NG TACH GENERATOR ENGINE, SMOKE/FUMES ENGINE, SMOKE/FUMES, ANTI-ICE ENGINE, NP ENGINE, SMOKE/FUMES, OIL ENGINE, SPEED SELECTOR ENGINE, NP GOVERNOR ENGINE, NP OVERSPEED ENGINE, NR DROOP ENGINE, STALL ENGINE, NR TACH GENERATOR ENGINE, STALL, AIRFLOW MODULATOR ENGINE, OEI ENGINE, STALL, COMPRESSOR ENGINE, STALL, FLOW FENCE ENGINE, STALL, FOD ENGINE, STALL, IGV ACTUATOR ENGINE, STALL, SALT ENGINE, OIL ENGINE, OIL COKING ENGINE, OIL COOLER ENGINE, OIL FILTER ENGINE, START ENGINE, OIL LEAK ENGINE, OIL LINE ENGINE, STARTER ENGINE, STARTER/GENERATOR ENGINE, OIL PRESS ENGINE, STATOR VANE ACTUATOR ENGINE, OIL PRESS, CAP ENGINE, TAILCONE ENGINE, OIL PRESS, CAP, O'RING ENGINE, OIL PRESS, FILLER NECK ENGINE, TAILCONE, DPTD INFLT ENGINE, TAILPIPE, DPTD INFLT ENGINE, OIL PRESS, O'RING ENGINE, TD SYSTEM ENGINE, OIL PRESS, PUMP ENGINE, OIL PRESS, SCAVENGE PUMP ENGINE, THROTTLE ENGINE, OIL PRESS, XDUCER **ENGINE, THUNDERSTORM** ENGINE, OIL PRESS, XMITTER ENGINE, TORQUE ENGINE, OIL QTY ENGINE, TORQUE METERING SYS ENGINE, TORQUE XDUCER ENGINE, OIL TEMP ENGINE, OIL, CAP ENGINE, TURBINE ENGINE, OIL, CHIP DETECTOR, O'RING ENGINE, WASH ENGINE, OIL, REDUCTION GEARBOX **ENGINE, WIRING HARNESS** ENGINE, OVERSPEED ENGINE, ZONE 2 OVHT

ENGINE, ZONE 2 OVHT, DETECTOR

ENGINE, OVERTEMP

ENGINE, OVERSPEED, AUTO

FLT INSTRUMENTS, LIGHTING FENESTRON, BLADES FLT INSTRUMENTS, PITOT/STATIC SYS FENESTRON, FOD FENESTRON, GROUND HANDLING FLT INSTRUMENTS, RADALT FENESTRON, GROUND STRIKE FLT INSTRUMENTS, RADALT, CYCLING FENESTRON, STRIKE FLT INSTRUMENTS, RADAR FENESTRON, TOWING FLT INSTRUMENTS, SMOKE/FUMES FIRE BOTTLE, INADVERTANT DISCHARGE **FUEL SPILL** FIRE, GROUND EQUIP **FUEL SYS FLARES** FUEL SYS, 7 MICRON FILTER FUEL SYS, BOOST PUMP FLOAT BAG, DEPLOYED INFLT FUEL SYS, CAP FLOAT BAG, INADVERTANT DEPLOYMENT FUEL SYS, CELL FLOAT BAGS FUEL SYS, COMPUTER FUEL SYS, CONTAMINATION FLT COMPUTER FUEL SYS, FEEDTANK FUEL SYS, FILTER FUEL SYS, FILTER BYPASS **FLT CONTROLS** FLT CONTROLS, AILERON FUEL SYS, FLAPPER VALVE FLT CONTROLS, AILERON BOOST PACKAGE FUEL SYS, FUELING FLT CONTROLS, AILERON, WIND FUEL SYS, FUMES FLT CONTROLS, AIRBRAKE FUEL SYS, FUMES, LINE FLT CONTROLS, BINDING FUEL SYS, JETTISON VALVE FLT CONTROLS, COLLECTIVE FUEL SYS, LEAK FLT CONTROLS, COLLECTIVE, BINDING FUEL SYS, LINE FLT CONTROLS, COLLECTIVE, DOWNLOCK FUEL SYS, MANAGEMENT FLT CONTROLS, COLLECTIVE, SERVO FUEL SYS, MANIFOLD FLT CONTROLS, COUPLING FUEL SYS, MOTIVE CHECK FLOW VALVE FLT CONTROLS, COUPLING, MIXING UNIT FUEL SYS, O'RING FUEL SYS, PRESS FLT CONTROLS, CYCLIC FLT CONTROLS, CYCLIC, BINDING FUEL SYS, PRESS, XMITTER FLT CONTROLS, CYCLIC, TRIM FUEL SYS, PUMP FLT CONTROLS, ELEVATOR FUEL SYS, SPILL FLT CONTROLS, ELEVATOR BOOST PACK FUEL SYS, TANKS FLT CONTROLS, ELEVATOR, TRIM FUEL SYS, TRANSFER PUMP FUEL SYS, TRANSFER VALVE FLT CONTROLS, FLAPS FLT CONTROLS, FLAPS, GROUND EQUIP **FUEL SYS, VALVE** FLT CONTROLS, FLAPS, MOISTURE FLT CONTROLS, FOD **GEARUP LANDING** FLT CONTROLS, ICING FLT CONTROLS, LATERAL SERVO **GROUND EQUIP** FLT CONTROLS, LOCKUP FLT CONTROLS, RUDDER **GYRO** FLT CONTROLS, RUDDER BOOST PACKAGE GYRO, ATTITUDE FLT CONTROLS, RUDDER, TOWING GYRO, COMPASS FLT CONTROLS, RUDDER, TRIM GYRO, PORT GYRO, STARBOARD FLT CONTROLS, RUDDER, WIND FLT CONTROLS, SERVO GYRO, VERTICAL FLT CONTROLS, SLATS GYRO, YAW RATE FLT CONTROLS, UNCOMMANDED MVMT FLT CONTROLS, WEATHER **HANGAR FLT DIRECTOR HARDLANDING** HARDLANDING, AUTO **FLT INSTRUMENTS** HARDLANDING, WATER FLT INSTRUMENTS, ALTIMETER FLT INSTRUMENTS, BDHI HAZMAT EXPOSURE FLT INSTRUMENTS, CMS FLT INSTRUMENTS, DDU **HIFR** FLT INSTRUMENTS, ECA FLT INSTRUMENTS, FMS **HOIST**

HOIST, ASSEMBLY	INDICATOR, FUEL
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HOIST, BASKET	INDICATOR, FUEL, FEEDTANK
HOIST, BOAT	INDICATOR, FUEL, FILTER
HOIST, BOATCREW	INDICATOR, FUEL, FILTER BYPASS
HOIST, CABLE	INDICATOR, FUEL, PRESS
HOIST, CABLE, FOULED	INDICATOR, FUEL, PUMP
HOIST, CABLE, PARTED	INDICATOR, GENERATOR
HOIST, CABLE, SHEARED	INDICATOR, HYD SYS
HOIST, CONTROL PANEL	INDICATOR, LIMIT LT
HOIST, DOOR	INDICATOR, MGB
	,
HOIST, HOOK	INDICATOR, MGB, CHIP LT
HOIST, HYD SYS	INDICATOR, MGB, FIRE LT
HOIST, RESCUE SWIMMER	INDICATOR, MGB, NR
HOIOT, REGOOD OWNWINER	
	INDICATOR, MGB, OIL PRESS
HORZ STAB	INDICATOR, MGB, OIL TEMP
HORZ STAB, GROUND EQUIP	INDICATOR, MGB, PUMP
HORZ STAB, ICE	INDICATOR, MGT
HORZ STAB, TOWING	INDICATOR, MLG
•	INDICATOR, NLG
LINED JENNING	·
HYD JENNY	INDICATOR, NR TACH
	INDICATOR, PRI HYD SYS
HYD SYS	INDICATOR, Q UNIT
HYD SYS, FILTER	INDICATOR, ROTOR BRAKE
HYD SYS, LINE	INDICATOR, SEC HYD SYS
HYD SYS, PRESS	INDICATOR, TORQUE XDUCER
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HYD SYS, PRESS, CAP	INDICATOR, TRIPLE TACH
HYD SYS, PRESS, XMITTER	INDICATOR, TRIPLE TORQUE
HYD SYS, PUMP	INDICATOR, WARNING HORN
HYD SYS, RESERVOIR	INDICATOR, WCA/MASTER WARNING LT
HYD SYS1	INDICATOR, ZONE 2 OVHT
HYD SYS1, PRESS	,
	IN ILIDY
HYD SYS1, PRESS, XMITTER	INJURY
HYD SYS1, PUMP	INJURY, BACK
HYD SYS1, RESERVOIR	INJURY, BURN
HYD SYS2	INJURY, CABIN PRESSURE
HYD SYS2, PRESS	INJURY, CARGO PALLET
HYD SYS2, PUMP	INJURY, EARS
HYD SYS2, RESERVOIR	INJURY, EARS, CABIN PRESSURE
	INJURY, ELECTRICAL
IGB, CHIP LT	INJURY, EYES
IGB, CHIP LT, DETECTOR	INJURY, EYES, FUEL
IGB, CHIP LT, METAL	INJURY, EYES, HYD FLUID
IGB, CHIP LT, NO METAL	INJURY, FALL
IGB, FOD	INJURY, FINGER
195, 1 05	
	INJURY, FIRE BOTTLE
ILLNESS, AIRCREW	INJURY, FUEL, FUMES
,	INJURY, FUMES
INDICATOR	
INDICATOR	INJURY, GROUND EQUIP
INDICATOR, CCD	INJURY, HAND
INDICATOR, DOOR LT	INJURY, HEAD
INDICATOR, ECU	INJURY, HOISTING
INDICATOR, ELECTRICAL	INJURY, JACKING
INDICATOR, ENG	INJURY, MRB, HEAD
INDICATOR, ENG, FIRE DETECTION SYS	INJURY, RADAR EXPOSURE
INDICATOR, ENG, FIRE LT	INJURY, RESCUE SWIMMER
INDICATOR, ENG, ITT	INJURY, TEETH
	HOOKI, ILLIII
INDICATOR, ENG, OIL	
INDICATOR, ENG, OIL PRESS	INPUT MODULE
INDICATOR, ENG, OIL TEMP	INPUT MODULE, CHIP LT, CHIPS
INDICATOR, ENG, TORQUE	INPUT MODULE, CHIPT LT, DETECTOR
INDICATOR, ENGINE, NG	
INDICATOR, ENGINE, NP	JETTISON, FUEL TANK
HADIO/ CLOTA, ENGINE, INI	SETTIOON, TOLL TAININ

JETTISON, LOAD	MLG, HYD SYS
	MLG, SCISSOR SWITCH
LIFE SUPPORT EQUIP	MLG, SQUAT SWITCH
	MLG, SWITCH
LIGHTNING STRIKE	MLG, TIRES
LIGHTNING STRIKE, AIRFRAME	MLG, TIRES, BRAKES
LIGHTNING STRIKE, RADOME	MLG, TOWING MLG, UNSAFE
MAIN ROTOR	MLG, UNSAFE, DOOR
MAIN ROTOR, BRAKE	MLG, UNSAFE, ICE
MAIN ROTOR, FREQ ADAPTER	MLG, UNSAFE, MICROSWITCH
,	MLG, UNSAFE, UPLOCK
MERCURY SPILL, MANOMETER	
	MRB
MGB	MRB, ANTI-FLAPPING STOP
MGB, CHIP LT	MRB, BLADE POCKET
MGB, CHIP LT, BEARING	MRB, BONDING WIRE
MGB, CHIP LT, CHIPS	MRB, CHECKSTAND
MGB, CHIP LT, DETECTOR MGB, CHIP LT, FLAKES	MRB, COWLING MRB, COWLING, DPTD INFLT
MGB, CHIP LT, FUZZ	MRB, DAMPER
MGB, CHIP LT, MAKING METAL	MRB, DEICE HARNESS
MGB, CHIP LT, METAL	MRB, ENGINE COWLING
MGB, CHIP LT, NO METAL	MRB, FIREWALL
MGB, CHIP LT, PARTICLES	MRB, FOD
MGB, CHIP LT, SLIVERS	MRB, FOD, HARD
MGB, FIRE DETECTION SYS	MRB, GROUND EQUIP
MGB, FOD	MRB, GROUND HANDLING
MGB, FREEWHEELING UNIT MGB, GROUND HANDLING	MRB, HOISTING MRB, IBIS
MGB, OIL	MRB, STATIC WICK
MGB, OIL LINE	MRB, STRIKE
MGB, OIL PRESS	MRB, STRIKE, AIRFRAME
MGB, OIL PRESS, CONTAMINATION	MRB, STRIKE, COWLING
MGB, OIL PRESS, FILTER BOWL	MRB, STRIKE, GROUND HANDLING
MGB, OIL PRESS, PUMP	MRB, STRIKE, TAIL PYLON
MGB, OIL PRESS, XDUCER	MRB, STRIKE, TAXIING
MGB, OIL PRESS, XMITTER MGB, OIL TEMP	MRB, TIP CAP
MGB, OIL TEMP MGB, OIL, FILTER BOWL	MRB, TOWING MRB, WEATHER
MGB, OIL, FILTER BYPASS	WIND, WEATTEN
MGB, OVERSPEED	NAVIGATION
MGB, OVERSPEED, AUTO	NAVIGATION, GPS
MGB, OVERTORQUE	
MGB, OVERTORQUE, AUTO	NLG
MGB, OVERTORQUE, INSPECTION	NLG, ACTUATOR
MGB, OVERTORQUE, PILOT	NLG, DOOR
MGB, OVERTORQUE, REMOVED MGB, OVERTORQUE, REPLACED	NLG, FAILED TO EXTEND NLG, MICROSWITCH
MGB, OVERTORQUE, REPLACED	NLG, MICKOSWITCH NLG, STEERING
MIDAIR, COMM	NLG, STEERING, ICE
111127 til 1, 00111111	NLG, STRUT
MLG	NLG, TOWBAR
MLG, ANTI-SKID	NLG, TOWING
MLG, BRAKES	NLG, UNSAFE
MLG, DOOR	NLG, UNSAFE, MICROSWITCH
MLG, FAILED TO EXTEND	NLG, WHEEL
MLG, FAILED TO EXTEND, MICROSWITCH	NMAC
MLG, FAILED TO RETRACT MLG, FAILED TO RETRACT, MICROSWITCH	NMAC, CIV
MLG, FAILED TO RETRACT, WICKOSWITCH	NMAC, COMM
MLG, FAILED TO RETRACT, WOW SWITCH	NMAC, HELO
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SMOKE/FUMES, INSULATION NMAC, MIL SMOKE/FUMES, O2 MASK NON-CG PROPERTY SMOKE/FUMES, WIPER MOTOR NVG **STABILATOR** STABILATOR, ACTUATOR PADS STABILATOR, AMP PADS, AIRFRAME STABILATOR, TRIM STBY HYD SYS PADS, DRAIN MAST PADS, DROP PADS, DROP CHUTE T/R PADS, DROP HANDLE T/R, DRIVE SHAFT PADS, DROP HOOK T/R, FOD PADS, LINE CUTTER T/R, HUB ASSEMBLY PADS, NON-CG PROPERTY T/R. SERVO PADS, STATIC/TRAIL LINE T/R, STRIKE PRESSURIZATION SYS TAIL PYLON PRESSURIZATION, BLEED AIR TAIL SKID PRI HYD SYS TAIL SKID, GROUND PRI HYD SYS, LINE TAIL SKID, STRIKE PRI HYD SYS, PRESS, XMITTER PRI HYD SYS, PUMP TAIL WHEEL PRI HYD SYS, SERVO TAIL, GROUND EQUIP PROP/JET WASH TDP LOCKUP PROP/JET WASH, NON-CG PROPERTY **TGB RADAR** TGB, CHIP LT TGB, CHIP LT, CARBON RADOME, ANTI-ICE TGB, CHIP LT, DETECTOR RADOME, GROUND HANDLING TGB, CHIP LT, FLAKES RADOME, PRESSURIZATION TGB, CHIP LT, FUZZ RADOME, TOWING TGB, CHIP LT, METAL RADOME, WEATHER TGB, CHIP LT, NO METAL TGB, CHIP LT, SLIVERS ROTORWASH ROTORWASH, NON-CG PROPERTY TOOL CONTROL RUNWAY, INCURSION **TOWBAR** SEC HYD SYS TRB, DELAMINATION SEC HYD SYS, CONTAMINATION TRB, FOD TRB, FOD, HARD SEC HYD SYS, LEAK SEC HYD SYS, PRESS TRB, GROUND HANDLING SEC HYD SYS, PRESS, XMITTER SEC HYD SYS, PUMP UTILITY HYD SYS UTILITY HYD SYS, PUMP SEC HYD SYS, SERVO SEC HYD SYS, WIRING **VERT FIN** VERT FIN, GROUND HANDLING SHIP/HELO, DAMAGE VERT FIN, TIPCAP SIGNAL DATA CONVERTER VERT FIN, TOWING SLING LOAD VERT STAB SLING LOAD, INADVERTANT RELEASE VERT STAB, GROUND EQUIP VERT STAB, TOWING SMOKE/FUMES **VIBRATIONS** SMOKE/FUMES SIU SMOKE/FUMES, ECA VIBRATIONS, AFCS SMOKE/FUMES, ECU VIBRATIONS, AIRFRAME

VIBRATIONS, BATTERY
VIBRATIONS, ENGINE
VIBRATIONS, MGB
VIBRATIONS, MRB
VIBRATIONS, MRB, SEPARATION
VIBRATIONS, ROTOR, FREQ ADAPTOR
VIBRATIONS, STARTER/GENERATOR
VIBRATIONS, T/R
VIBRATIONS, UNKNOWN

WAKE TURBULENCE

WEATHER, DOWNBURST WEATHER, TURBULENCE WEATHER, WINDSHEAR

WING
WING RAFT, DEPLOYED
WING RAFT, DEPLOYED INFLT
WING, FUELING
WING, GROUND EQUIP
WING, GROUND HANDLING
WING, JACKING
WING, TAXIING
WING, TOWING